

Response
Serial No. 10/644,861
Attorney Docket No. 030852

REMARKS

Claims 3-8 are pending in the present application. No amendment has been proposed. It is respectfully submitted that this Response is fully responsive to the Office Action dated August 3, 2005.

As To The Merits:

As to the merits of this case, the Examiner sets forth the following rejection:

claims 3-8 stand rejected under 35 USC 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Deutsch (U.S. Patent No. 3,881,156, of record) and Yamamoto et al.

This rejection is respectfully traversed.

Claim 3 calls for *a data acquisition apparatus comprising multiple input modules having different measurement intervals, wherein said data acquisition apparatus is characterized in that a control means is provided for simultaneously driving each input modules at a desired measurement interval.*

For example, in the present invention, Fig. 5 is a timing chart that illustrates the operations for the combination of Figs. 3 and 4. The measurement start command MC1 for the first measurement is input to each of the input modules 20, 30 and 40. The switches of each of the input modules 20, 30 and 40 are sequentially and selectively driven one at a time. Specifically, switches SW01 through SW10 in input module 20 are sequentially and selectively driven at 2-second measurement intervals; switches SW11 through SW20 in input module 30 are sequentially and selectively driven at 1-second measurement intervals; and switches SW21 through SW30 in input module 40 are sequentially and selectively driven at 0.1-second measurement intervals.

With regard to this feature of claim 3, the Examiner asserts that:

AAPA teaches all of the above limitations, but is silent about simultaneously driving each of the input modules at a desired measurement interval. However, Deutsch teaches simultaneously measuring intervals of different lengths and beginning at different times (at a desired measured interval) for the benefit of being able to have numerous measuring intervals of different lengths beginning at different times [column 1 lines 24-50].¹

However, it is respectfully submitted that Deutsch's teaching of simultaneously measuring time intervals of different lengths with different start times is completely different from driving input modules at different measurement intervals.

¹ Please see, the last paragraph on 2 of the Action.

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That is, in the present invention several kinds of measurement modules with different measuring period operate as one weighing device. Further, another characteristic feature of the present invention is that the measurement data that each measurement module collected at a different cycle can be handled as the measurement data on the basis of the same time. However, Deutsch fails to teach these above mentioned characteristic features of the present invention.

In other words, assuming arguendo, that the teaching of Deutsch regarding simultaneously measuring time intervals of different lengths is used in the prior art apparatus with the configuration such as that shown in Fig. 1 of the present application, such combination would still not be capable of driving input modules at different measurement intervals and instead would merely result in the timer 11 of the main unit 10 being able to measure different time intervals of different lengths.

As such, it is respectfully submitted that the Examiner's combination of AAPA in view of Deutsch would still fail to disclose or fairly suggest the features of claim 3 concerning *a data acquisition apparatus comprising multiple input modules having different measurement intervals, wherein said data acquisition apparatus is characterized in that a control means is provided for simultaneously driving each input modules at a desired measurement interval.*

In addition, claim 3 also calls for *the measurement start command transmission control means is a memory, which stores in tabular format the input modules to which measurement start commands are to be sent in the measurement start command transmission timing.*

For example, in the present invention, the contents of the measurement sequence are saved to the command memory 16 prior to the start of measurement. Herein, a measurement sequence establishes which input module to send a measurement start command to in the timing for sending measurement start commands; i.e., whether or not to send a measurement start command to each input module. For example, the measurement interval of the input module 20, which has the slowest measurement interval, is set to a single cycle, and the main control 12 calculates the sequence determining what timing to use in that period in sending measurement start commands to input modules 30 and 40, which have shorter measurement intervals. The results are saved to the command memory 16, in a tabular format such as that shown in Fig. 4.

With regard to this feature of claim 3, the Examiner asserts that:

The combination of AAPA and Deutsch teach all of the above limitations except for the measurement start command transmission control means is a memory, which stores in tabular format the input modules to which measurement start commands are to be sent in the measurement start command transmission timing.

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However, Yamamoto teaches a measurement start command transmission control means is a memory, which stores in tabular format the input modules to which measurement start for the benefit of being able to have full control of the timing of the clock [column 1 lines 55-65].²

However, it is respectfully submitted that the Examiner is clearly mis-characterizing the teachings of Yamamoto, since Yamamoto is simply not concerned with storing in tabular format the input modules to which measurement start commands are to be sent in the measurement start command transmission timing.

Instead, Yamamoto discloses in col. 2, lines 11-17 and lines 37-43 that:

The ROM 100 stores drive pulse generating patterns as shown in Fig. 2 together with time information in the form of a table. The time information is stored in the form of a number of clock signals. For example, during the time from t_0 to t_1 a drive pulse signal ϕ_A is generated, so that information of $(t, \phi_A, \phi_B, \phi_C) = (t_0, 1, 0, 0)$ is stored.

Upon reaching the time t_1 , (clock signal number n_1), the corresponding time signal is read out of the ROM 100 and applied to the drive circuit 15. This cause running of the motor 16 in response to the drive pulse ϕ_B . By repeating this operation, the drive pulse signals ϕ_C and ϕ_A and ϕ_B are sequentially applied to the motor 16 at predetermined intervals.

In view of the above, it is clear that Yamamoto merely stores drive pulse generating patterns which are sequentially applied to the motor 16 as a function of the time intervals.

That is, in the invention of Yamamoto, an engineer of the product decides the pattern of the motor indicated. In contrast, in the present invention, a user stores various patterns

² Please see, lines 9-15, page 3 of the Action.

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corresponding to the measuring period that suites the measurement usage in the memory. Thus, Yamamoto is totally different from the present invention.

In other words, Yamamoto is completely silent with regard to storing input modules to which measurement start commands are to be sent, since each of the drive pulse generating patterns are applied to the same module, motor 16.

Therefore, it is quite clear that Yamamoto also fails to disclose the features of claim 3 concerning *the measurement start command transmission control means is a memory, which stores in tabular format the input modules to which measurement start commands are to be sent in the measurement start command transmission timing.*

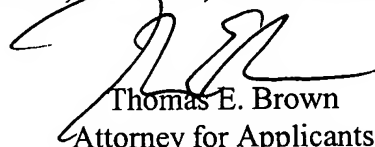
In view of the aforementioned remarks, Applicants submit that that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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